

## NEW MEXICO GRASS TYPES AND A SELECTED BIBLIOGRAPHY OF NEW MEXICO GRASS TAXONOMY<sup>1</sup>

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**ABSTRACT.**—Collection data, bibliographic citations, and curatorial information on 52 names of New Mexico grass types are compiled. A bibliography of taxonomic research pertinent to the study of New Mexico grasses is cross-referenced with genera known to occur in the state.

Bibliographic and historical information are an essential, but often neglected, resource for the student of plant systematics. The correct application of plant names requires accurate information concerning nomenclatural types, and precise floristic and identification work demands access to reliable monographic or revisionary literature. This is especially so when changes are made in traditional systematic alignments; reference literature allows others to understand and evaluate the revisions.

Nearly every botanist engaged in the taxonomy of grasses (Gramineae) during the past century described at least one novelty from New Mexico material. The list of grass types presented here includes 52 taxa known to have been described from specimens gathered in New Mexico. As a point of comparison, 19 grass taxa have been named from Utah material (Welsh 1982). Twenty-one different authors contributed new taxa; but three, George Vasey (14 names), John Torrey (6 names), and Ernst Steudel (5 names), accounted for nearly 50% of the plant names (Table 1). Botanical publication of grass taxa from New Mexico began in 1854 with species of *Aristida*, *Muhlenbergia*, *Oryzopsis*, and *Poa* (Steudel 1854) and has continued for well over a century, the latest being in 1986 from the genus *Andropogon* (Campbell 1986). Of the authors, only A. S. Hitchcock, Paul Standley, George Thurber, George Vasey, and E. O. Wooton also participated as field collectors of new grasses from New Mexico (Table 1). George Vasey heads the list with

collections of 9 new taxa from New Mexico. Grant and Santa Fe counties contain the most localities of new grasses (Table 2). Santa Fe is one of the oldest towns in the United States and was visited by many collectors early in the 1800s. William Gambel passed through in 1841 or 1842 on his way to California; his collections were described by Thomas Nuttall. Wislizenus followed in 1846. August Fendler made extensive collections there in the spring of 1847, sending them to Asa Gray. Most of his collections came from the Santa Fe Creek area and within 10–12 miles of Santa Fe. A. A. Heller, G. R. Vasey, S. M. Tracy, and T. D. A. Cockerell were other botanists who collected near Santa Fe in the late 1800s or early 1900s; the collections of Vasey and Tracy contributed new grasses. Many of the collections from Grant County came from the mining camp of Santa Rita, 15 miles east of Silver City. Charles Wright, J. M. Bigelow, and George Thurber collected there in the 1850s. Mangas Springs, also in Grant County, was visited by O. B. Metcalfe in 1903, who collected several hundred sets of plants. C. G. Pringle, H. H. Rusby, and J. G. Smith also collected new grasses from Grant County (Standley 1910).

The ensuing list attempts to include all grass names based on New Mexico material. The author of the name, publication data, collector and number, locality of collection, deposition of type material, and current taxonomic disposition of the name are given for each type.

Following the list of types is a list of the

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TABLE 1. Authors and collectors of New Mexico grass types.

Name	Authored	Collected
Thomas Antisell	0	1
William J. Beal	1	0
John M. Bigelow	0	5
W. S. Boyle	1	0
Samuel B. Buckley	2	0
Christopher S. Campbell	1	0
Karel Domin	2	0
William H. Emory	0	1
August Fendler	0	7
William Gambel	0	2
Eduard Hackel	1	0
Albert S. Hitchcock	2	2
Edwin James	0	1
Ivan M. Johnston	1	0
Marcus E. Jones	1	0
O. C. Louis-Marie	1	0
Edgar A. Mearns	0	1
Elmer D. Merrill	1	0
Orrick B. Metcalfe	0	3
George Nash	3	0
Thomas Nuttall	2	0
Cyrus G. Pringle	0	1
H. H. Rusby	0	1
Frank L. Scribner	4	0
Cornelius L. Shear	1	0
Jared G. Smith	1	2
Paul C. Standley	1	1
Ernst G. Steudel	5	0
Jason Swallen	3	0
George Thurber	1	1
John Torrey	6	0
Samuel M. Tracy	0	1
George Vasey	14	9
Wilkins	0	1
S. W. Woodhouse	0	1
Elmer O. Wooton	1	5
Charles Wright	0	6

TABLE 2. Counties of collection of New Mexico grass types.

County	Number of types
Bernalillo	1
Colfax	1
Doña Ana	4
Eddy	3
Grant	12
Hidalgo	1
Lincoln	1
Otero	2
Rio Arriba	2
San Miguel	3
Santa Fe	11
Socorro	1

*Andropogon glomeratus* (Walter) B.S.P. var. *scabriglumus* Campbell, Syst. Bot. 11: 291. 1986. C. Wright 2100, in 1851, Grant Co., probably near Silver City (GI).

*Andropogon neo-mexicanus* Nash, Bull. Torr. Bot. Club 25: 83. 1898. E. O. Wooton 583, 26 Aug 1897, Otero Co., White Sands (NY). = *Schizachyrium neomexicanum* (Nash) Nash

*Andropogon wrightii* Hackel, Flora 68: 139. 1855. C. Wright 2104, in 1851, Grant Co., Silver City (US). = *Bothriochloa wrightii* (Hack.) Henr.

*Aristida fendleriana* Steudel, Syn. Pl. Glum. 1: 420. 1854. Fendler 973, in 1847, Santa Fe Co., Santa Fe (US). = *Aristida purpurea* Nutt. var. *fendleriana* (Steud.) Vasey

*Aristida longiseta* Steudel, Syn. Pl. Glum 1: 420. 1854. Fendler 978, in 1847, probably Santa Fe Co., Santa Fe (US). = *Aristida purpurea* Nutt. var. *longiseta* (Steud.) Vasey

*Aristida pansa* Wooton & Standley, Contr. U.S. Natl. Herb. 16: 112. 1913. Wooton s.n., 6 Oct 1904, Doña Ana Co., Tortugas Mt. near Las Cruces (US).

*Aristida subuniflora* Nash in Small, Fl. Southeast. U.S. 116. 1903. Vasey s.n., in 1881<sup>2</sup>, "New Mexico," probably Santa Fe Co. near Santa Fe (NY). = *Aristida purpurea* Nutt. var. *fendleriana* (Steud.) Vasey

*Bouteloua pusilla* Vasey, Bull. Torr. Bot. Club 11: 6. 1884. G. R. Vasey s.n., "Kingman, New Mexico" (US). [Probably Kingman, Arizona, as there is no known Kingman, New Mexico.] = *Bouteloua simplex* Lag.

*Bromus porteri* (Coulter) Nash var. *frondosus* Shear, U.S.D.A. Div. Agrost. Bull. 23: 37. 1900. J. G. Smith s.n., Grant Co., Mangas Springs (US).

*Calycodon montanum* Nuttall, J. Acad. Nat. Sci. Phil. n. ser. 1: 186. 1848. W. Gambel s.n., Santa Fe Co., near Santa Fe (PH). = *Muhlenbergia montana* (Nutt.) A. S. Hitchc.

*Chaetochloa grisebachii* (Fourn.) Scribn. var. *ampla* Scribner & Merrill, U.S.D.A. Div. Agrost. Bull. 21: 36. 1900. G. R. Vasey s.n., in 1881, Doña Ana Co., Organ Mountains (US). [One of two specimens cited] = *Setaria grisebachii* Fourn.

*Chondrismium criopodium* Torrey in Emory, Notes Mil. Recom. 154. 1848. Bigelow s.n., in 1847, "along the Del Norte [Rio Grande] River," New Mexico (US). = *Bouteloua criopoda* (Torr.) Torr.

grass genera of New Mexico cross-referenced to a selected bibliography. The bibliography is not intended to be exhaustive; rather, only significant revisionary or summary papers pertinent to New Mexico grass taxonomy are listed. Further references may be obtained by consulting the works listed here, particularly Gould and Shaw (1983) and Soderstrom et al. (1987).

#### NEW MEXICO GRASS TYPES

The acronym in parentheses (Holmgren et al. 1981) refers to the locality of type material: holotype, isotype, fragment, or other duplicate material.

*Agrostis minutissima* Steudel, Syn. Pl. Glum. 1: 171. 1854. Fendler 986, in 1847, Santa Fe Co., near Santa Fe (US). = *Muhlenbergia minutissima* (Steud.) Swallen

*Chondrosium foecnum* Torrey in Emory, Notes Mil. Recom. 154. 1848. Emory s.n., in 1847, "uplands bordering the valley of the Del Norte [Rio Grande]." = *Bouteloua hirsuta* Lag.

*Epicampes subpatens* A. S. Hitchcock, U.S.D.A. Bull. 772: 144. 1920. A. S. Hitchcock 13541, Eddy Co., Guadalupe Mountains (US). = *Muhlenbergia cernsleyi* Vasey

*Eragrostis feudleriana* Steudel, Syn. Pl. Glum. I: 278. 1854. Fendler 932, in 1847, "Mexico" [now New Mexico], probably Santa Fe Co. near Santa Fe (US). = *Poa fendleriana* (Steud.) Vasey

*Eragrostis neomexicana* Vasey, Contr. U.S. Natl. Herb. 2: 542. 1894. Vasey s.n., in 1881, Doña Ana Co., Organ Mountains (US). = *Eragrostis mexicana* (Hornem.) Link

*Fendleria rhynchelytroides* Steudel, Syn. Pl. Glum. I: 420. 1854. Fendler 979, in 1847, probably Santa Fe Co., near Santa Fe (US). = *Oryzopsis hymenoides* (Roem. & Schult.) Ricker

*Koeleria macrura* Domin forma *triflora* Domin, Bibl. Bot. 65: 238. 1907. E. O. Wooton 110, probably 1897, Doña Ana Co., Organ Mountains (US). = *Koeleria macrantha* (Ledeb.) Schult.

*Koeleria nitida* Nuttall var. *laxa* Domin, Bibl. Bot. 65: 235. 1907. O. B. Metcalfe s.n., perhaps Grant Co., "New Mexico." [Another specimen from Arizona also cited] = *Koeleria macrantha* (Ledeb.) Schult.

*Melica porteri* Scribner var. *laxa* Boyle, Madroño 8: 25. 1945. E. O. Wooton 680, in 1897, Lincoln Co., White Mountains (US).

*Muhlenbergia abata* L. M. Johnston, J. Arnold Arbor. 24: 387. 1943. Wright 1982, in 1851, valley of the Rio Grande (GH). = *Muhlenbergia repens* (Presl) A. S. Hitch.

*Muhlenbergia acuminata* Vasey, Bot. Gaz. 11: 337. 1886. Wright 1993, in 1851, probably Grant Co. near Santa Rita (US). = *Muhlenbergia dubia* Fourn.

*Muhlenbergia metcalfei* M. E. Jones, Contr. West. Bot. 14: 12. 1912. O. B. Metcalfe 1485, in 1904, Grant Co., Santa Rita Mountains (US).

*Muhlenbergia neo-mexicana* Vasey, Bot. Gaz. 11: 337. 1886. G. R. Vasey s.n., in 1881?, "rocky hills and mountain sides, New Mexico" (US). = *Muhlenbergia pauciflora* Buckl.

*Muhlenbergia sinuosa* Swallen, Contr. U.S. Natl. Herb. 29: 204. 1947. E. A. Mearns 2457, in 1893, Hidalgo Co., San Luis Mountains (US).

*Muhlenbergia sylvatica* (Torr.) Torr. var. *flexuosa* Vasey in Wheeler, Rpt. U.S. Survey W. 100th Merid. 6: 284. 1878. Wright 731, in 1851, perhaps Grant Co. near Silver City. = *Muhlenbergia monticola* Buckl.

*Muhlenbergia sylvatica* (Torr.) Torr. var. *pringlei* Scribner, Bull. Torr. Bot. Club 9: 89. 1882. C. Pringle 480, Grant Co., Santa Rita Mountains (US). = *Muhlenbergia pauciflora* Buckl.

*Muhlenbergia wrightii* Vasey in Coulter, Man. Rocky Mount. 409. 1885. Wright 1986, in 1851, "Colorado and New Mexico" (US).

*Panicum bulbosum* H.B.K. var. *minus* Vasey, U.S.D.A. Div. Bot. Bull. 8: 38. 1889. Rusby s.n., in 1880, perhaps Grant Co. near Mangas Springs (US).

*Panicum lachnanthum* Torrey, U.S. Expl. Miss. Pacif. Rpt. 7: 21. 1858. T. Antisell s.n., in Aug 1854, Grant Co.,

Burro Mountains (NY). = *Digitaria californica* (Benth.) Henr.

*Panicum plemum* A. S. Hitchcock & Chase, Contr. U.S. Natl. Herb. 15: 80. 1910. Metcalfe 739, Sep 1903, Grant Co., Mangas Springs (US). = *Panicum bulbosum* H.B.K.

*Pleopogon setosum* Nuttall, J. Acad. Phil. n. ser. 1: 189. 1848. W. Gambel s.n., in 1841 or 1842, Santa Fe Co., "mountains of Santa Fe" (PH). = *Lycurus phleoides* H.B.K. var. *glaucifolius* Beal

*Pleuraphis jamesii* Torrey, Ann. Lyc. N.Y. 1: 148. 1824. James s.n., in 1852, sources of the Canadian River, Texas or New Mexico (NY). = *Hilaria jamesii* (Torr.) Benth.

*Poa arida* Vasey, Contr. U.S. Natl. Herb. 1: 270. 1893. G. R. Vasey s.n., in 1881, Socorro Co., Socorro (US).

*Poa bigelovii* Vasey & Scribner, Contr. U.S. Natl. Herb. 1: 270. 1893. Fendler 931, in 1847, "New Mexico," Santa Fe Co., probably along Santa Fe Creek east of Santa Fe (US?).

*Poa occidentalis* Vasey, Contr. U.S. Natl. Herb. 1: 274. 1893. G. R. Vasey s.n., in 1881, Santa Fe Co., near Santa Fe (US).

*Poa tracyi* Vasey, Contr. U.S. Natl. Herb. 1: 276. 1893. S. M. Tracy s.n., in 1887, Colfax Co., "on mountain sides at Raton" (US).

*Sitonion caespitosum* J.G. Smith, U.S.D.A. Div. Agrost. Bull. 18: 16. 1899. J. G. Smith s.n., in 1897, Grant Co., near Cliff (US). = *Elymus longifolius* (Smith) Gould

*Sporobolus filiculmis* Beal, Grasses N. Amer. 2: 285. 1896. Bigelow s.n., Sep 1853, Rio Arriba Co., Plaza Larga. = *Muhlenbergia thurberi* Rydb.

*Sporobolus giganteus* Nash, Bull. Torr. Bot. Club 25: 88. 1898. E. O. Wooton 394, 26 Aug 1907, Otero Co., White Sands (US).

*Sporobolus thurberi* Scribner, U.S.D.A. Div. Agrost. Bull. 11: 48. 1898. Bigelow s.n., Sep 1853, Rio Arriba Co., Plaza Larga (US). = *Muhlenbergia thurberi* Rydb.

*Stipa curvifolia* Swallen, J. Wash. Acad. Sci. 23: 456. 1933. Wilkins 1660, Eddy Co., Guadalupe Mountains (US).

*Stipa lobata* Swallen, J. Wash. Acad. Sci. 23: 199. 1933. A. S. Hitchcock (Amer. Gr. Natl. Herb. 819), Eddy Co., Queen, Guadalupe Mountains (US).

*Stipa pennata* L. var. *neomexicana* Thurber in Coulter, Man. Rocky Mount. 408. 1885. Thurber 269, probably Grant Co., "Rio Mimbres." = *Stipa neomexicana* (Thurb.) Scribn.

*Stipa scribnieri* Vasey, Bull. Torr. Bot. Club 11: 125. 1884. Vasey s.n., in 1881?, Santa Fe Co., Santa Fe (US).

*Tricuspidia mutica* Torrey, U.S. Expl. Miss. Pacif. Rpt. 4: 156. 1856. Bigelow s.n., 22 Sep 1853, San Miguel Co., Laguna, Colorado (NY). = *Tridens muticus* (Torr.) Nash

*Trisetum montanum* Vasey, Bull. Torr. Bot. Club 13: 118. 1886. G. R. Vasey s.n., in 1881, San Miguel Co., Las Vegas (US).

*Trisetum montanum* Vasey var. *pilosum* Louis-Marie, Rhodora 30: 212. 1928. P. C. Standley 4536, Aug 1908, San Miguel Co., Cowles. = *Trisetum montanum* Vasey

*Uralepis composita* Buckley, Proc. Acad. Nat. Sci. Phila. 1862: 94. 1862. Woodhouse s.n., probably 1851, "New Mexico" (PH). = *Leptochloa fascicularis* (Lam.) Gray

*Uralepis poaeoides* Buckley, Proc. Acad. Nat. Sci. Phila. 1862: 94. 1862. Fendler 932, in 1847, probably Santa Fe Co. near Santa Fe (PH). = *Poa fendleriana* (Steud.) Vasey

*Vilfa tricholepis* Torrey, U.S. Expl. Miss. Pacif. Rpt. 4: 155. 1857. Bigelow s.n., Oct 1853, Bernalillo Co., Sandia Mountains (NY). = *Blepharoneuron tricholcips* (Torr.) Nash

### SELECTED BIBLIOGRAPHY OF NEW MEXICO GRASS TAXONOMY

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## LITERATURE CITED

- ALLRED, K. W. 1982. *Paspalum distichum* L. var. *indutum* Shinners (Poaceae). Great Basin Naturalist 42: 101-104.
- \_\_\_\_\_. 1984. Morphologic variation and classification of the North American *Aristida purpurea* complex (Gramineae). Brittonia 36: 382-395.
- ALLRED, K. W., AND J. T. COLUMBUS. 1988. New Mexico grasses: a synopsis of the classification and a key to the genera. New Mexico J. Sci. 28: 21-43.
- ALLRED, K. W., AND F. W. GOULD. 1983. Systematics of the *Bothriochloa saccharoides* complex (Poaceae: Andropogoneae). Syst. Bot. 8: 168-184.
- ANDERSON, D. E. 1961. Taxonomy and distribution of the genus *Phalaris*. Iowa State J. Sci. 36: 1-96.
- \_\_\_\_\_. 1974. Taxonomy of the genus *Chloris* (Gramineae). Brigham Young Univ. Sci. Bull., Biol. Ser. 19(2): 1-133.
- ANTON, A. M. 1981. The genus *Tragus* (Gramineae). Kew Bull. 36: 55-61.
- ANTON, A. M., AND A. T. HUNZIKER. 1978. El genero *Munroa* (Poaceae): Sinopsis morfológica y taxonómica. Bol. Acad. Nac. Ci. 52: 229-252.
- ARGUS, G. W., AND S. G. AIKEN. 1987. Noteworthy collections: New Mexico: *Festuca minutiflora* Rydb. Madroño 34: 268-269.
- ARNOW, L. 1981. *Poa secunda* Presl versus *Poa sandbergii* Vasey (Poaceae). Syst. Bot. 6: 412-421.
- ATKINS, R. J., M. E. BARKWORTH, AND D. R. DEWEY. 1984. A taxonomic study of *Leymus ambiguus* and *L. salinus* (Poaceae: Triticeae). Syst. Bot. 9: 279-294.
- BANKS, D. J. 1966. Taxonomy of *Paspalum setaceum* (Gramineae). Sida 2: 269-284.
- BARKWORTH, M. E. 1978. A taxonomic study of the large-glumed species of *Stipa* (Gramineae) occurring in Canada. Can. J. Bot. 56(6): 606-625.
- \_\_\_\_\_. 1979. A proposal to reject *Stipa columbiana* (Poaceae) and nomenclatural changes affecting three western North American species of *Stipa* (Poaceae). Taxon 28: 621-625.
- \_\_\_\_\_. 1982. Embryological characters and the taxonomy of the Stipeae (Gramineae). Taxon 31(2): 233-243.
- BARKWORTH, M. E., J. MCNEILL, AND J. MAZE. 1979. A taxonomic study of *Stipa nelsonii* (Poaceae) with a key distinguishing it from related taxa in western North America. Can. J. Bot. 57(22): 2539-2553.
- BARKWORTH, M. E., AND R. J. ATKINS. 1984. *Leymus* Hochst. (Gramineae: Triticeae) in North America: taxonomy and distribution. Amer. J. Bot. 71: 609-625.
- BARKWORTH, M. E., AND D. R. DEWEY. 1985. Genomically based genera in the perennial Triticeae of North America: identification and membership. Amer. J. Bot. 72: 767-776.
- BARKWORTH, M. E., D. R. DEWEY, AND R. E. ATKINS. 1983. New generic concepts in the Triticeae (Gramineae) of the Intermountain Region: keys and comments. Great Basin Naturalist 43: 561-572.
- BAUM, B. R. 1967. Kalm's specimens of North American grasses. Their evaluation for typification. Canad. J. Bot. 45: 1845-1852.
- \_\_\_\_\_. 1968. On some relationships between *Avena sativa* and *A. fatua* (Gramineae) as studied from Canadian material. Can. J. Bot. 46: 1013-1022.
- \_\_\_\_\_. 1977. Oats, wild and cultivated—a monograph of the genus *Avena* L. (Poaceae). Dept. Agric. Ottawa.
- \_\_\_\_\_. 1978. Taxonomy of the tribe Triticeae (Poaceae) using various numerical taxonomic techniques. III. Synoptic key to genera and synopses. Can. J. Bot. 56: 374-395.
- \_\_\_\_\_. 1980. Multivariate morphometric relationships between *Hordeum jubatum* and *Hordeum brachyantherum* in Canada and Alaska. Can. J. Bot. 58: 604-623.
- \_\_\_\_\_. 1983. Morphometric relationships in *Hordeum vulgare* (Triticeae, Poaceae). II. *Hordeum agriocriton*, *H. distichum*, *H. lagunculiforme*, *H. spontaneum*, and *H. vulgare*. Can. J. Bot. 61: 2023-2031.
- \_\_\_\_\_. 1986. Taxonomy of the North and South American species of *Hordeum* section *Hordeastrum*. Can. J. Bot. 64: 1745-1759.
- BAUM, B. R., AND L. G. BAILEY. 1984a. Taxonomic studies in wall barley (*Hordeum murinum*) and sea barley (*Hordeum marinum*). I. Character investigation: assessment of new and traditional characters. Can. J. Bot. 62: 753-762.
- \_\_\_\_\_. 1984b. Taxonomic studies in wall barley (*Hordeum murinum*) and sea barley (*Hordeum marinum*). 2. Multivariate morphometrics. Can. J. Bot. 62: 2754-2764.
- \_\_\_\_\_. 1988. A taxonomic investigation of *Hordeum arizonicum* (Poaceae: Triticeae) with reference to related species. Can. J. Bot. 66: 1848-1855.
- \_\_\_\_\_. 1989. Are *Hordeum brachyantherum* and *H. californicum* (Triticeae: Poaceae) conspecific? Can. J. Bot. 67: 46-52.
- BEETLE, A. A. 1943. The North American variations of *Distichlis spicata*. Bull. Torrey Bot. Club 70: 638-650.
- BJÖRKMAN, S. O. 1960. Studies in *Agrostis* and related genera. Symb. Bot. Upsal. 17: 1-112.
- BOIVIN, B., AND D. LÖVE. 1960. *Poa agassizensis*, a new prairie bluegrass. Le Naturaliste Canadien 87: 173-180.
- BOOKMAN, P. A. 1980. Variation in *Bromus tectorum* (Poaceae) in eastern Washington. Madroño 27: 36-42.
- BOOTH, T. A., AND A. J. RICHARDS. 1976. Studies in the *Hordeum murinum* aggregate. I. Morphology. Bot. J. Linn. Soc. 72: 149-159.
- BOOTHMER, R. N., N. JACOBSON, R. B. JORGENSEN, AND E. NICORA. 1982. Revision of the *Hordeum pusillum* group. Nordic J. Bot. 2: 307-321.
- BOUGH, M., J. C. COLOSI, AND P. B. CAVERS. 1986. The major weedy biotypes of proso millet (*Panicum miliaceum*) in Canada. Can. J. Bot. 64: 1188-1198.
- BOWDEN, W. M. 1959. The taxonomy and nomenclature of the wheats, barleys, and ryes and their wild relatives. Can. J. Bot. 37: 657-684 [*Hordeum secale*, *Triticum*].
- \_\_\_\_\_. 1967. Taxonomy of intergeneric hybrids of the tribe Triticeae from North America. Can. J. Bot. 45: 711-724.

40. BOYLE, W. S. 1945. A cytogenetic study of the North American species of *Melica*. *Madroño* 8: 1–26.
41. BOYLE, W. S., AND A. H. HOLMGREN. 1955. A cytogenetic study of natural and controlled hybrids between *Agropyron trachycaulum* and *Hordeum jubatum*. *Genetics* 40: 539–545.
42. BRIGGLE, L. W. 1969. Triticale—a review. *Crop Sci.* 9: 197–202.
43. BRIGGLE, L. W., AND L. P. REITZ. 1963. Classification of *Triticum* species and of wheat varieties grown in the United States. *USDA Tech. Bull.* 1278. 135 pp.
44. BRUNKEN, J. N. AND J. R. ESTES. 1975. Cytological and morphological variation in *Panicum virgatum*. *Southw. Naturalist* 19: 379–385.
45. BUSEY, P., T. K. BROSCHAT, AND B. J. CENTER. 1982. Classification of St. Augustinegrass. *Crop Sci.* 22: 469–473 [*Stenotaphrum*].
46. BUTZIN, F. 1973. Die Namen der supragenerischen Einheiten der Gramineae (Poaceae). *Willdenowia* 7: 113–168.
47. CAMPBELL, C. S. 1983. Systematics of the *Andropogon virginicus* complex (Gramineae). *J. Arnold Arbor.* 64: 171–254.
48. ———. 1985. The subfamilies and tribes of Gramineae (Poaceae) in the southeastern United States. *J. Arnold Arbor.* 66: 123–199.
49. ———. 1986. Phylogenetic reconstructions and two new varieties in the *Andropogon virginicus* complex (Poaceae: Andropogoneae). *Syst. Bot.* 11: 280–292.
50. CAMUS, A. 1954. Etude du genre *Redfieldia* Vasey, Américain et Malgache. *Not. System.* 15: 7–10.
51. CHAPMAN, S. R., AND L. J. PERRY, JR. 1973. Taxonomic and agronomic variation in *Agropyron spicatum* and *A. inerme*. *J. Range Manage.* 26: 41–43.
52. CHASE, A. 1921. The Linnaean concept of the pearl millet. *Amer. J. Bot.* 8: 41–49.
53. ———. 1946. *Euneapogon desvauxii* and *Pappophorum wrightii*, an agrostological detective story. *Madroño* 8: 187–189.
54. CHURCH, G. L. 1949. A cytogenetic study of *Glyceria* and *Puccinellia*. *Amer. J. Bot.* 36: 155–165.
55. ———. 1952. The genus *Torreyochloa*. *Rhodora* 54: 197–200.
56. CLAY, K. 1983. Variation in the degree of cleistogamy within and among species of the grass *Danthonia*. *Amer. J. Bot.* 70: 835–843.
57. CLAYTON, W. D. 1968. The correct name for the common reed. *Taxon* 17: 168–169 [*Phragmites*].
58. ———. 1981. Early sources of tribal names in Gramineae. *Kew Bull.* 36: 483–495.
59. CLAYTON, W. D., S. M. PHILLIPS, AND S. A. RENOVOIZE. 1974. Flora of tropical East Africa. Gramineae, part II. Crown Agents for Overseas Governments and Administrators, London, pp. 177–450.
60. CLAYTON, W. D., AND S. A. RENOVOIZE. 1986. Genera graminum: grasses of the world. *Kew Bull. Addit. Ser.* XIII. 389 pp.
61. CLAUSEN, R. T. 1952. Suggestion for the assignment of *Torreyochloa* to *Puccinellia*. *Rhodora* 54: 42–45.
62. CONERT, H. J., AND A. M. TÜRPE. 1974. Revision der gattung *Schismus* (Poaceae: Arundinoideae: Danthonieae). *Abh. Senckenberg. Naturf. Ges.* 532: 1–81.
63. CONNOR, H. E. 1983. Names and types in *Cortaderia* Stapf (Gramineae). II. *Taxon* 32: 633–634.
64. COVAS, G. 1949. Taxonomic observations on the North American species of *Hordeum*. *Madroño* 10: 1–21.
65. DAUBENMIRE, R. 1960. An experiment study of variation in the *Agropyron spicatum*–*A. inerme* complex. *Bot. Gaz.* 122: 104–108.
66. DAVIS, J. I. 1983. Phenotypic plasticity and the selection of taxonomic characters in *Puccinellia* (Poaceae). *Syst. Bot.* 8: 341–353.
67. DELISLE, D. G. 1963. Taxonomy and distribution of the genus *Cenchrus*. *Iowa State J. Sci.* 37: 259–351.
68. DEWET, J. M. J. 1968. Biosystematics of the *Bothriochloa harbinidis* complex (Gramineae). *Amer. J. Bot.* 55: 477–484.
69. ———. 1978. Systematics and evolution of *Sorghum* sect. *Sorghum* (Gramineae). *Amer. J. Bot.* 65: 477–484.
70. DEWET, J. M. J., D. S. BORGONKAR, AND W. L. RICHARDSON. 1963. Chromosome number and mode of reproduction in the *Bothriochloinae*. *Caryologia* 16: 47–55.
71. DEWET, J. M. J., J. R. GRAY, AND J. R. HARLAN. 1976. Systematics of *Tripsacum* (Gramineae). *Phytologia* 33: 203–227.
72. DEWET, J. M. J., J. P. HUCKABAY. 1967. The origin of *Sorghum bicolor*. II. Distribution and domestication. *Evolution* 21: 787–802.
73. DEWET, J. M. J., AND J. R. HARLAN. 1970a. *Bothriochloa intermedia*—a taxonomic dilemma. *Taxon* 19: 339–340.
74. ———. 1970b. Biosystematics of *Cynodon* L. C. Rich. (Gramineae). *Taxon* 19: 565–569.
75. DEWEY, D. R. 1963. Natural hybrids of *Agropyron trachycaulum* and *Agropyron scribneri*. *Bull. Torrey Bot. Club* 90: 111–122.
76. ———. 1964. Natural and synthetic hybrids of *Agropyron spicatum* × *Sitanion hystris*. *Bull. Torrey Bot. Club* 91: 396–405.
77. ———. 1983. New nomenclatural combinations in the North American perennial Triticeae (Gramineae). *Brittonia* 35: 30–33.
78. ———. 1983. Historical and current taxonomic perspectives of *Agropyron*, *Elymus* and related genera. *Crop Sci.* 23: 637–642.
79. ———. 1984. The genomic system of classification as a guide to intergeneric hybridization within the perennial Triticeae. Pp. 209–280 in J. P. Gustafson, ed., *Gene manipulation in plant improvement*. Plenum Press, New York.
80. DEWEY, D. R., AND K. H. ASAY. 1982. Cytogenetic and taxonomic relationships among three diploid crested wheatgrasses. *Crop Sci.* 22: 645–650 [*Agropyron*].
81. DEWEY, D. R., AND C. HSIAO. 1983. A cytogenetic basis for transferring Russian wildrye from *Elymus* to *Psathyrostachys*. *Crop Sci.* 23: 123–126.
82. DOGGETT, H. 1970. *Sorghum*. Longmans, London. 403 pp.

83. DORE, W. G. 1950. Persian darnel in Canada. *Sci. Agric.* 30: 157-164 [*Lolium*].
84. ELLIOT, F. C. 1949. *Bromus inermis* and *B. pumpellianus* in North America. *Evolution* 3: 142-149.
85. EMERY, W. H. P. 1957a. A cytotaxonomic study of *Setaria macrostachya* (Gramineae) and its relatives in the southwestern United States and Mexico. *Bull. Torrey Bot. Club* 84: 95-105.
86. ———. 1957b. A study of reproduction in *Setaria macrostachya* and its relatives in southwestern United States and Mexico. *Bull. Torrey Bot. Club* 84: 106-121.
87. ERDMAN, K. S. 1965. Taxonomy of the genus *Sphenopholis* (Gramineae). *Iowa State J. Sci.* 39: 289-336.
88. FAIRBROTHERS, D. E. 1959. Morphological variation of *Setaria faberii* and *S. viridis*. *Brittonia* 11: 44-48.
89. FARUQI, S. A., AND H. B. QURAISHI. 1979. Studies on Libyan grasses. V. Population variability and distribution of *Schismus arabicus* and *S. barbatus* in Libya. *Pak. J. Bot.* 11(2): 167-172.
90. FERNALD, M. L. 1928. The American and eastern Asiatic *Beckmannia*. *Rhodora* 30: 24-27.
91. ———. 1932. *Phragmites communis* Trin. var. *berlandieri* (Fournier) comb. nov. *Rhodora* 34: 211-212.
92. ———. 1943. Five common rhizomatous species of *Muhlenbergia*. *Rhodora* 45: 222-239.
93. FERNALD, M. L., AND C. A. WEATHERBY. 1916. The genus *Puccinellia* in eastern North America. *Rhodora* 18: 1-23.
94. FINDLAY, J. N., AND B. R. BAUM. 1974. The nomenclatural implications of the taxonomy of *Danthonia* in Canada. *Canad. J. Bot.* 52: 1573-1581.
95. FREDERIKSEN, S. 1979. *Festuca minutiflora* Rydb., a neglected species. *Bot. Notiser* 132: 315-318.
96. ———. 1982. *Festuca brachyphylla*, *F. saximontana* and related species in North America. *Nord. J. Bot.* 2: 525-536.
97. FREEMAN, D. 1979. Lehmann lovegrass. *Rangelands* 1: 162-163 [*Eragrostis*].
98. GABLE, M. L. 1984. A biosystematic study of the genus *Elymus* (Gramineae: Triticeae) in Iowa. *Proc. Iowa Acad. Sci.* 9: 140-146.
99. GILLETT, J. M., AND H. A. SENN. 1960. Cytotaxonomy and infraspecific variation of *Agropyron smithii* Rydb. *Canad. J. Bot.* 38: 747-760.
100. GOULD, F. W. 1947. Nomenclatural changes in *Elymus* with a key to the California species. *Madroño* 9: 120-128.
101. ———. 1957. New North American andropogons of subgenus *Amphilophus* and a key to those species occurring in the United States. *Madroño* 14: 18-29 [*Bothriochloa*].
102. ———. 1975. *Grasses of Texas*. Texas A&M University Press, College Station. 653 pp.
103. ———. 1979. The genus *Bouteloua*. *Ann. Missouri Bot. Gard.* 66: 348-416.
104. GOULD, F. W., M. A. ALI, AND D. E. FAIRBROTHERS. 1972. A revision of *Echinochloa* in the United States. *Amer. Midl. Naturalist* 87: 36-59.
105. GOULD, F. W., AND C. A. CLARK. 1978. *Dichanthelium* (Poaceae) of the United States and Canada. *Ann. Missouri Bot. Gard.* 65: 1088-1132.
106. GOULD, F. W., AND R. B. SHAW. 1983. *Grass systematics*. 2d ed. Texas A&M University Press, College Station. 397 pp.
107. GRANT, M. C., AND J. ANTONOVICKS. 1978. Biology of ecologically marginal populations of *Anthoxanthum odoratum*. I. Phenetics and dynamics. *Evolution* 32: 822-838.
108. GREENE, C. W. 1984. Sexual and apomictic reproduction in *Calamagrostis* (Gramineae) from eastern North America. *Amer. J. Bot.* 71: 285-293.
109. GREUTER, W. 1968. *Notulae nomenclaturales et bibliographicae 1-4*. *Candollea* 23: 81-108 [*Koeleria*].
110. GROSS, A. T. H. 1960. Distribution and ecology of *Elymus macounii* Vasey. *Can. J. Bot.* 38: 63-67.
111. GUZMAN, R., AND F. J. SANTANA M. 1987. Las especies mexicanas del género *Paspalum* L. (Gramineae). *Univ. Guadalajara Folleto Técnico No. 1*.
112. HALPERIN, M. 1933. The taxonomy and morphology of bulbous bluegrass, *Poa bulbosa vivipara*. *J. Amer. Soc. Agron.* 25: 408-413.
113. HARLAN, J. R. 1945. Cleistogamy and chasmogamy in *Bromus carinatus* Hook. & Arn. *Amer. J. Bot.* 32: 66-72.
114. HARVEY, L. 1975. *Eragrostis*. Pp. 177-201 in F. W. Gould, *Grasses of Texas*. Texas A&M University Press, College Station. 653 pp.
115. HILL, S. R. 1982. Vegetative apomixis ("Vivipary") in *Bouteloua hirsuta* Lag. (Poaceae). *Sida* 9: 355-357.
116. HITCHCOCK, A. S. 1920. The genera of grasses of the United States, with special reference to the economic species. *USDA Bull.* 772.
117. HITCHCOCK, A. S., AND M. A. CHASE. 1910. The North American species of *Panicum*. *Contr. U.S. Natl. Herb.* 15: 1-396.
118. ———. 1951. Manual of the grasses of the United States. 2d ed. U.S.D.A. Misc. Publ. 200. 1,051 pp.
119. HOLMGREN, P. K., W. KEUKEN, AND E. K. SCHOFIELD. 1981. *Index Herbariorum*, part 1. The herbaria of the world. Bohn, Scheltema & Holkema, Utrecht.
120. HUITÉN, E. 1959. The *Trisetum spicatum* complex. *Sv. Bot. Tidskr.* 53: 203-228.
121. HUMPHRIES, C. J. 1978. Notes on the genus *Phleum*. *L. Bot. J. Linn. Soc.* 76: 337-339.
122. ILTIS, H. H. 1983. From teosinte to maize: the catastrophic sexual transmutation theory. *Science* 222: 886-894 [*Zea*].
123. ILTIS, H. H., AND J. F. DOEBLEY. 1980. Taxonomy of *Zea* (Gramineae). II. Subspecific categories in the *Zea mays* complex and a generic synopsis. *Amer. J. Bot.* 67: 994-1004.
124. JAUKAR, P. P. 1975. Chromosome relationships between *Lolium* and *Festuca* (Gramineae). *Chromosoma* 52: 103-121.
125. JOHNSON, B. L. 1945. Natural hybrids between *Oryzopsis hymenoides* and several species of *Stipa*. *Amer. J. Bot.* 32: 599-608.
126. JOHNSON, B. L., D. BARNHART, AND O. HALL. 1967. Analysis of genome and species relationships in the polyploid wheats by protein electrophoresis. *Amer. J. Bot.* 54: 1089-1098 [*Triticum*].
127. JOHNSON, B. L., AND H. S. DHALIWAL. 1976. Reproductive isolation of *Triticum bocovicum* and *Triticum urartu* and the origin of the tetraploid wheats. *Amer. J. Bot.* 63: 1088-1094.

128. JONES, E. K., AND N. C. FASSETT. 1950. Subspecific variation in *Sporobolus cryptandrus*. *Rhodora* 52: 125-126.
129. KARLSSON, T. 1987. *Setaria adhaerans* and *S. faberi* new to Sweden. *Svensk Bot. Tidskr.* 81: 305-311.
130. KAWANO, W. 1963. Cytogeography and evolution of the *Deschampsia caespitosa* complex. *Can. J. Bot.* 41: 719-742.
131. —. 1965. *Calamagrostis purpurascens* R.Br. and its identity. *Acta Phytotax. Geobot.* 21: 73-89.
132. KELLOGG, E. 1985a. A biosystematic study of the *Poa secunda* complex. *J. Arnold Arbor.* 66: 201-242.
133. —. 1985b. Variation and names in the *Poa secunda* complex. *J. Range Management* 38: 516-521.
134. KOCH, S. D. 1974. The *Eragrostis pectinacea-pilosa* complex in North and Central America (Gramineae: Eragrostoideae). *Illinois Biol. Monogr.* 48: 1-74.
135. —. 1979. The relationships of three Mexican Aveneae, and some new characters for distinguishing *Deschampsia* and *Trisetum*. *Taxon* 28: 225-235.
136. KOCH, S. D., AND I. SANCHEZ V. 1985. *Eragrostis mexicana*, *E. neomexicana*, *E. orcuttiana* and *E. virescens*: the resolution of a taxonomic problem. *Phytologia* 58: 377-381.
137. KOYAMA, T., AND S. KAWANO. 1964. Critical taxa of grasses with North American and eastern Asiatic distribution. *Can. J. Bot.* 42: 859-884 [Schizachne].
138. LAZARIDES, M. 1972. A revision of Australian Chlorideae (Gramineae). *Australian J. Bot. (suppl. ser.) Suppl. No. 5 [Chloris]*.
139. LONARD, R. L., AND F. W. GOULD. 1974. The North American species of *Vulpia* (Gramineae). *Madroño* 22: 217-230.
140. LOUIS-MARIE, O. C. 1928. The genus *Trisetum* in America. *Rhodora* 30: 209-228, 231-245.
141. LUSH, W. M. 1959. Adaptation and differentiation of golf course populations of annual bluegrass (*Poa annua*). *Weed Sci.* 37: 54-59.
142. McGREGOR, R. L. 1984a. *Panicum capillare* L. var. *occidentale* Rydb. (Poaceae): an illegitimate name. *Contr. Univ. Kansas Herb. No. 10.*
143. —. 1984b. *Panicum capillare* L. var. *barbipulvinatum* (Nash) comb. nov. *Phytologia* 55(4): 256.
144. —. 1984c. *Panicum dichotomiflorum* (Poaceae) variation in Kansas including notes on the sterile palea. *Contr. Univ. Kansas Herb. No. 8.* 3 p.
145. —. 1985. *Panicum hillmanii* Chase (Poaceae): validity and distribution. *Contr. Univ. Kansas Herb. No. 13.* 9 pp.
146. MCNEILL, J. 1976. Nomenclature of four perennial species of *Bromus* in eastern North American, with a proposal for the listing of *B. purgans* L. as a rejected name under Article 69. *Taxon* 25: 611-616.
147. —. 1979. *Diplachne* and *Leptochloa* (Poaceae) in North America. *Brittonia* 31: 399-404.
148. MALIK, C. P. 1967. Hybridization of *Festuca* species. *Can. J. Bot.* 45: 1025-1029.
149. MARSH, V. L. 1952. A taxonomic revision of the genus *Poa* of United States and southern Canada. *Amer. Midl. Naturalist* 47: 202-250.
150. MARTIN, W. C., AND C. R. HUTCHINS. 1980. A flora of New Mexico. Vol. I. Vaduz, West Germany, J. Cramer. 1,276 pp.
151. MELDERIS, A. 1978. Taxonomic notes on the tribe Triticeae (Gramineae), with special reference to the genera *Elymus* L. *sensu lato*, and *Agropyron* Gaertner *sensu lato*. *Bot. J. Linn. Soc.* 76: 369-384.
152. MITCHELL, W. W. 1967. On the *Hordeum jubatum-H. brachyantherum* question. *Madroño* 19: 108-110.
153. MITCHELL, W. W., AND A. C. WILSON. 1964. The *Hordeum jubatum-caespitosum-brachyantherum* complex in Alaska. *Madroño* 17: 269-280.
154. MOBBERLEY, D. G. 1956. Taxonomy and distribution of the genus *Spartina*. *Iowa State Coll. J. Sci.* 30: 471-574.
155. MORDEN, C. W., AND S. L. HATCH. 1986. Vegetative apomixis in *Muhlenbergia repens* (Poaceae: Eragrostideae). *Sida* 11: 282-285.
156. —. 1987. Anatomical study of the *Muhlenbergia repens* complex (Poaceae: Chloridoideae: Eragrostideae). *Sida* 12: 347-359.
157. MORROW, L. A., AND P. W. STAHLMAN. 1984. The history and distribution of downy brome (*Bromus tectorum*) in North America. *Weed Sci.* 32 (suppl.): 2-6.
158. NELSON, E. N., AND R. J. TYRL. 1978. Hybridization and introgression between *Elymus canadensis* and *Elymus virginicus* (Poaceae). *Proc. Okla. Acad. Sci.* 58: 32-34.
159. NOMENCLATURE COMMITTEE, IAPT. 1983. Report on Proposal 528: rejection of *Paspalum distichum* L. (Gramineae). *Taxon* 32: 281 [name stands].
160. PAVLICK, L. E. 1983a. Notes on the taxonomy and nomenclature of *Festuca occidentalis* and *F. idahoensis*. *Can. J. Bot.* 61: 337-344.
161. —. 1983b. The taxonomy and distribution of *Festuca idahoensis* in British Columbia and northwestern Washington. *Can. J. Bot.* 61: 345-353.
162. —. 1984. Studies on the *Festuca orina* complex in the Canadian Cordillera. *Can. J. Bot.* 62: 244S-2462.
163. —. 1985. A new taxonomic survey of the *Festuca rubra* complex in northwestern North America, with emphasis on British Columbia. *Phytologia* 57: 1-17.
164. PERRY, G., AND J. MCNEILL. 1986. The nomenclature of *Eragrostis ciliolata* (Poaceae) and the contribution of Bellardi to Allioni's *Flora Pedemontana*. *Taxon* 35: 696-701.
165. PHILIPSON, W. R. 1937. A revision of the British species of the genus *Agrostis*. *J. Linn. Soc. Bot.* 51: 73-151.
166. PINTO-ESCOBAR, P. 1976. Nota sobre el ejemplar tipo de "*Bromus catharticus*" Vahl. *Caldasia* 11: 9-16.
167. POHL, R. W. 1962a. *Agropyron* hybrids and the status of *Agropyron pseudorepens*. *Rhodora* 64: 143-147.
168. —. 1962b. Notes on *Setaria viridis* and *S. faberi* (Gramineae). *Brittonia* 14: 210-213.
169. —. 1969. *Muhlenbergia* subgenus *Muhlenbergia* (Gramineae) in North America. *Amer. Midl. Naturalist* 82: 512-542.
170. POHL, R. W., AND W. W. MITCHELL. 1965. Cytogeography of the rhizomatous American species of *Muhlenbergia*. *Brittonia* 17: 107-112.

171. POZARNKY, T. 1983. Buffalograss: home on the range, but also a turf grass. *Rangelands* 5: 214–216 [*Buchloë*].
172. PYRAIL, G. L. 1969. Taxonomic and distributional studies in *Leersia* (Gramineae). *Iowa St. J. Sci.* 44: 215–270.
173. RANDALL, J. L., AND K W HILU. 1986. Biosystematic studies of North American *Trisetum spicatum* (Poaceae). *Syst. Bot.* 11: 567–578.
174. REEDER, C. G. 1949. *Muhlenbergia minutissima* (Steudel) Swallen and its allies. *J. Wash. Acad. Sci.* 39: 363–367.
175. ———. 1985. The genus *Lycurus* (Gramineae) in North America. *Phytologia* 57: 283–291.
176. REEDER, J R. 1951. *Setaria lutescens*, an untenable name. *Rhodora* 53: 27–30.
177. ———. 1953. Affinities of the grass genus *Beckmannia* Host. *Bull. Torrey Bot. Club* 80: 187–196.
178. ———. 1976. Systematic position of *Redfieldia* (Gramineae). *Madroño* 23: 434–438.
179. ———. 1986. Another look at *Eragrostis tephro-santhos* (Gramineae). *Phytologia* 60: 153–154.
180. REEDER, J R., AND C. G. REEDER. 1980. Systematics of *Bouteloua breviseta* and *B. ramosa* (Gramineae). *Syst. Bot.* 5: 312–321.
181. REEDER, J R., AND J. TOOLIN. 1987. *Scleropogon* (Gramineae), a monotypic genus with disjunct distribution. *Phytologia* 62: 267–275.
182. REEDER, J R., AND L J TOOLIN. 1989. Notes on *Pappophorum* (Gramineae: Pappophoreae). *Syst. Bot.* 14: 349–358.
183. RIGGINS, R. 1977. A biosystematic study of the *Sporobolus asper* complex (Gramineae). *Iowa State J. Res.* 51: 287–321.
184. ROMINGER, J. M. 1962. Taxonomy of *Setaria* (Gramineae) in North America. *Illinois Biol. Monogr.* 29: 1–132.
185. SAKAR, P. 1956. Crested wheatgrass complex. *Can. J. Bot.* 34: 328–345 [*Agropyron*].
186. SÁNCHEZ, E. 1983. *Dasyochloa* Willdenow ex Rydberg (Poaceae): Género monotípico de Norteamérica. *Lilloa* 36: 131–138 [*Erioneuron*].
187. SAUER, J. D. Revision of *Stenotaphrum* (Gramineae: Paniceae) with attention to its historical geography. *Brittonia* 24: 202–222.
188. SEARS, P. B. 1977. Sleepy grass. *Rangeman's Journal* 4(3): 67–68 [*Stipa robusta*].
189. SHAW, E. A. 1987. Charles Wright on the boundary: 1849–1852, or *Plantae Wrightianae* revisited. Meckler Publishing Corp., Westport, Connecticut. 44 pp.
190. SHAW, R. B., AND R D WEBSTER. 1987. The genus *Eriochloa* (Poaceae: Paniceae) in North and Central America. *Sida* 12: 165–207.
191. SHEAR, C. L. 1900. A revision of the North American species of *Bromus* occurring north of Mexico. U.S.D.A. Div. Agrostol. Bull. 23: 1–66.
192. SHINNERS, L. H. 1954. Notes on north Texas grasses. *Rhodora* 56: 31–32 [nomenclature of *Koeleria*].
193. ———. 1956. Illegitimacy of Persoon's species of *Koeleria* (Gramineae). *Rhodora* 58: 93–96.
194. SIEBER, V K., AND B G. MURRAY. 1979. The cytology of the genus *Alopeurus* (Gramineae). *J. Linn. Soc. Bot.* 79: 343–355.
195. SMITH, P. 1970. Taxonomy and nomenclature of the brome-grasses. *Notes Roy. Bot. Gard. Edinburgh* 30: 361–376 [*Bromus*].
196. SNYDER, L. A. 1950. Morphological variability and hybrid development in *Elymus glaucus*. *Amer. J. Bot.* 37: 628–636.
197. SÖDERSTRÖM, T R. 1967. Taxonomic study of subgenus *Podosenum* and section *Epicampes* of *Muhlenbergia* (Gramineae). *Contr. U.S. Natl. Herb.* 34: 75–189.
198. SÖDERSTRÖM, T R., AND J H BEAMAN. 1968. The genus *Bromus* (Gramineae) in Mexico and Central America. *Mich. St. Univ. Publ. Mus. Biol. Ser.* 3: 465–520.
199. SÖDERSTRÖM, T R., K W HILU, C S CAMPBELL, AND M E BARKWORTH. 1987. Grass systematics and evolution. Smithsonian Press, Washington, D.C. 473 pp.
200. SOHNS, E. R. 1956. The genus *Hilaria* (Gramineae). *J. Wash. Acad. Sci.* 46: 311–321.
201. SOBENG, R J. 1985. *Poa* L. in New Mexico, with a key to middle and southern Rocky Mountain species (Poaceae). *Great Basin Naturalist* 45: 395–422.
202. SOBENG, R J., AND S L HATCH. 1983. A comparison of *Poa tracyi* and *Poa occidentalis*. *Sida* 10: 123–141.
203. STACE, C. A. 1987. Tritcale: a case of nomenclatural mistreatment. *Taxon* 36: 445–452 [*Triticosecale*].
204. STANDLEY, P C. 1910a. The type localities of plants first described from New Mexico. *Contr. U.S. Natl. Herb.* 13: 143–227.
205. ———. 1910b. A bibliography of New Mexico botany. *Contr. U.S. Natl. Herb.* 13: 229–246.
206. STEBBINS, G L., JR. 1930. A revision of some North American species of *Calamagrostis*. *Rhodora* 32: 35–57.
207. ———. 1947. The origin of the complex of *Bromus carinatus* and its phytogeographic implications. *Contr. Gray Herb.* 165: 42–55.
208. ———. 1981. Chromosomes and evolution in the genus *Bromus* (Gramineae). *Bot. Jahrb. Syst.* 102: 359–379.
209. STEBBINS, G. L., JR., AND D ZOHARY. 1959. Cytogenetic and evolutionary studies in the genus *Dactylis*. *Univ. Calif. Publ. Bot.* 31: 1–40.
210. STEUDEL, J. 1854. *Synopsis Plantarum Glumacearum*. Pars I. Gramineae. Stuttgart.
211. STUTZ, H C. 1972. On the origin of cultivated rye. *Amer. J. Bot.* 59: 59–70 [*Secale*].
212. SWALLEN, J. R. 1928. The grass genus *Schizachne*. *J. Wash. Acad. Sci.* 18: 203–206.
213. ———. 1931. *Crassipes*, a new grass genus from Utah. *Amer. J. Bot.* 18: 684–685 [*Sclerochloa*].
214. ———. 1948. *Agrostis variabilis* Rydb., a valid species. *Leafl. W. Bot.* 5: 123–125.
215. TATEOKA, T. 1961. A biosystematic study of *Tridens* (Gramineae). *Amer. J. Bot.* 48: 565–573.
216. TAYLOR, D R., AND L W. AARSSEN. 1988. An interpretation of phenotypic plasticity in *Agropyron repens* (Gramineae). *Amer. J. Bot.* 75: 401–413.
217. TERRELL, E. E. 1967. Meadow fescue: *Festuca elatior* L. or *F. pratensis* Hudson? *Brittonia* 19: 129–132.
218. ———. 1966. Taxonomic implications of genetics in ryegrasses (*Lolium*). *Bot. Rev.* 32: 138–164.
219. ———. 1968a. Notes on *Festuca arundinacea* and *F. pratensis* in the United States. *Rhodora* 70: 564–568.

220. \_\_\_\_\_. 1968b. A taxonomic revision of genus *Lolium*. U.S.D.A.-A.R.S. Tech. Bull. 1392.
221. \_\_\_\_\_. 1976. The correct names for pearl millet and yellow foxtail. *Taxon* 25: 297–304. [*Setaria*]
222. THIERET, J. W. 1966. Synopsis of the genus *Calamovilfa* [Gramineae]. *Castanea* 31: 145–152.
223. VELDKAMP, J. F. 1984. The identity of *Andropogon nutans* Linnaeus (Gramineae). *Taxon* 33: 95–97.
224. WAGNON, H. K. 1952. A revision of the genus *Bromus*, section *Bromopsis*, of North America. *Brittonia* 7: 415–480.
225. WALLER, F. R. 1976. A biosystematic study of *Panicum* section *Diffusa* (Poaceae) in North America. Unpublished dissertation, Texas A&M University, College Station. 123 pp.
226. WARWICK, S. I., B. K. THOMPSON, AND L. D. BLACK. 1984. Population variation in *Sorghum halepense*, Johnson grass, at the northern limits of its range. *Can. J. Bot.* 62: 1780–1790.
227. WATSON, L., H. T. CLIFFORD, AND M. J. DALLWITZ. 1985. The classification of Poaceae: subfamilies and supertribes. *Australian J. Bot.* 33: 433–484.
228. WEBSTER, R. D. 1987. Taxonomy of *Digitaria* section *Digitaria* in North America (Poaceae: Paniceae). *Sida* 12: 209–222.
229. \_\_\_\_\_. 1988. Genera of the North American Paniceae (Poaceae: Panicoideae). *Syst. Bot.* 13: 576–609.
230. WEIMARK, G. 1971. Variation and taxonomy of *Hierochloë* (Gramineae) in the Northern Hemisphere. *Bot. Not.* 124: 129–175.
231. WELSH, S. L. 1982. Utah plant types—historical perspective 1840 to 1981—annotated list, and bibliography. *Great Basin Naturalist* 42: 129–195.
232. WESTERN REGIONAL TECHNICAL COMMITTEE W-90. 1972. Galleta: taxonomy, ecology, and management of *Hilaria jamesii* on western rangelands. *Utah Agr. Exp. Sta. Bull.* 487. 38 pp.
233. WIDÉN, K. 1971. The genus *Agrostis* L. in eastern Fennoscandia. Taxonomy and distribution. *Fl. Fennica* 5: 1–209.
234. WILSON, F. D. 1963. Revision of *Sitanion* (Triticeae, Gramineae). *Brittonia* 15: 303–323.
235. WITHERSPOON, J. T. 1975. A numerical taxonomic study of the *Eragrostis intermedia* complex. Unpublished dissertation, University of Montana, Missoula. 483 pp.
236. WOOTON, E. O. 1903. Range grasses of New Mexico. *Rpt. Gov. New Mexico* 1902: 232–234.
237. WOOTON, E. O., AND P. C. STANLEY. 1912. The grasses and grasslike plants of New Mexico. *New Mexico Agric. Exp. Sta. Bull.* 81. 175 pp.
238. \_\_\_\_\_. 1913. Descriptions of new plants preliminary to a report upon the flora of New Mexico. *Contr. U.S. Natl. Herb.* 16: 109–196.
239. \_\_\_\_\_. 1915. Flora of New Mexico. *Contr. U.S. Natl. Herb.* 19: 1–794.
240. ZULOAGO, F., AND T. R. SODERSTROM. 1985. Classification of the outlying species of New World *Panicum* (Poaceae: Paniceae). *Smithsonian Contr. Bot.* 59.
241. BUSEY, P. 1986. Morphological identification of St. Augustinegrass cultivars. *Crop Sci.* 26: 28–32 [*Stenotaphrum*].
242. FELBER, F. 1988. Phenology of flowering of diploid and tetraploid populations of *Anthoxanthum alpinum* and *Anthoxanthum odoratum*. *Can. J. Bot.* 66: 2258–2264.
243. MIZIANTY, M. 1986. Biosystematic studies on *Dactylis* L. I. Review of previous studies. *Acta Soc. Bot. Pol.* 55: 467–479.

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